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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,329	12/05/2003	Masaki Nakamura	56232.97	1138

7590 11/03/2006

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EXAMINER
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SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/729,329

Applicant(s)

NAKAMURA ET AL.

Examiner

Callie E. Shosho

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 8/7/06.

The new grounds of rejection set forth below are necessitated by applicants' amendment and thus, the following action is final.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recite in step (b) "then stirring for at least one hour". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the recitation of the cited phrase, applicants point to the example on page 46 of the present specification. The example discloses adding styrene and sodium

dodecylsulfonate to aqueous dispersion of pigment particle and then stirring for one hour.

However, while the example provides support to recite stirring for one hour, the example does not provide support to recite stirring “for at least one hour” as presently claimed which includes not only stirring for one hour but stirring for all times greater than one hour, i.e. 1.5 hours, 5, hours, 10 hours, etc. for which there is no support in the specification as originally filed. Further, it is not clear that the example is commensurate in scope with the scope of the present claims. That is, in contrast to the present claims that require mixing aqueous dispersion of pigment and compound with hydrophilic portion and hydrophilic portion first followed by adding monomer and then stirring for one hour, the example appears to add monomer and compound with hydrophilic portion and hydrophilic portion to aqueous pigment dispersion and then stirring for one hour, i.e. no disclosure of first mixing aqueous dispersion of pigment and compound with hydrophilic portion and hydrophilic portion. Clarification is requested.

It is noted that Table 1 on page 53 discloses further examples similar to the example on page 46 of the specification. However, there is no disclosure in the Table regarding stirring time. While Table 1 does disclose time for adsorption of the surfactant, which appears to be equivalent to the stirring time, there is no explicit disclosure in the specification regarding the relationship between stirring time and time for adsorption of pigment. Clarification is requested. Even if the time for adsorption of the surfactant is equivalent to the stirring time, it is noted that while Table 1 provides support for stirring for one hour or two hours, the Table does not provide support for the recitation of stirring “for at least one hour” as presently claimed which includes not only stirring for one hour or two hour, but stirring for all times greater than one hour, i.e. 1.5 hours, 5, hours, 10 hours, etc. for which there is no support in the specification as originally filed.

**Claim Rejections - 35 USC § 102**

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 6, 8-13 and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by McCovick (U.S. 2004/0110867).

The rejection is adequately set forth in paragraph 6 of the office action mailed 5/9/06 and is incorporated here by reference.

6. Claims 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Reiss (U.S. 3,714,102).

The rejection is adequately set forth in paragraph 7 of the office action mailed 5/9/06 and is incorporated here by reference.

7. Claims 6, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin (U.S. 4,608,401).

The rejection is adequately set forth in paragraph 9 of the office action mailed 5/9/06 and is incorporated here by reference.

**Claim Rejections - 35 USC § 103**

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCovick (U.S. 2004/0110867) in view of Elwakil (U.S. 5,833,743)

The rejection is adequately set forth in paragraph 12 of the office action mailed 5/9/06 and is incorporated here by reference.

10. Claims 6, 8-12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyabayashi (U.S. 2004/0229974) in view of WO 01/96483.

The rejection is adequately set forth in paragraph 13 of the office action mailed 5/9/06 and is incorporated here by reference.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyabayashi in view of WO 01/96483 as applied to claims 6, 8-12 and 14-17 above, and further in view of Ma et al. (U.S. 5,648,405).

The rejection is adequately set forth in paragraph 14 of the office action mailed 5/9/06 and is incorporated here by reference.

12. Claims 6, 9-13, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-012802.

The rejection is adequately set forth in paragraph 15 of the office action mailed 5/9/06 and is incorporated here by reference.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-012802 as applied to claims 6, 9-13, and 15-17 above, and further in view of Elwakil (U.S. 5,833,743)

The rejection is adequately set forth in paragraph 16 of the office action mailed 5/9/06 and is incorporated here by reference.

#### **Response to Arguments**

14. Applicants' arguments filed 8/10/06 have been fully considered but they are not persuasive.

Specifically, applicants argue that none of the references of record, i.e. McCovick, Reiss, Martin, Miyabayashi, and JP 2002-012802, are relevant against the present claims given that there is no disclosure in any of the references of stirring for one hour as now required in all the present claims.

It is agreed that there is no disclosure in McCovick, Reiss, Martin, Miyabayashi, or JP 2002-012802 of stirring for one hour as presently claimed which is why none of the references are now used to reject claims 1-5 which now require the limitation of stirring for at least one hour. However, each of McCovick, Reiss, Martin, Miyabayashi, and JP 2002-012802 are still applied against present claims 6 and 8-17 as set forth above given that there is no requirement in present claims 6 and 8-17 of stirring for at least one hour.

Applicants note that when mixing time is less than one hour, the content of the polymer microparticles without pigment is much higher than 1 wt.%. As evidence to support this position, applicants point to Table 1 on page 53 of the specification. Applicants point to pigment

dispersion 19 and pigment dispersion 21 which utilize stirring for less than 1 hour and note that the use of these pigment dispersions results in aqueous dispersion containing 20.4% and 25.6% polymer microparticles without pigment, respectively.

However, while Table 1 shows the time required for adsorption of the surfactant, there is no disclosure regarding the stirring time. It is not clear what, if any, difference there is between stirring time and time for adsorption of surfactant. Clarification is requested.

It is noted that even if stirring time is equivalent to time for adsorption of surfactant, the data set forth in Table 1 would not be persuasive in establishing unexpected or surprising results over the cited prior art for the following reasons.

The data would not be persuasive given that the data is not commensurate in scope with the scope of the present claims given that there is no requirement in present claims 6 and 8-17 of stirring for at least one hour. Further, there is not proper side-by-side comparison between aqueous dispersion within the scope of the present claims, i.e. formed by stirring for at least one hour, with aqueous dispersion outside the scope of the present claims, i.e. stirring for less than one hour. That is, while pigment dispersion 1 is superior in terms of amount of polymer microparticle with no pigment as compared to pigment dispersion 19, there is not proper side-by-side comparison between the two dispersions given that they utilize different amounts of pre-adding monomer and thus, it is not clear if the differences between the dispersions are due to the difference in the amount of styrene or to the difference in mixing time.



**Conclusion**

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vincent et al. (U.S. 7,119,133) disclose method for forming microencapsulated pigment comprising pigment covered with polymer wherein the method comprises mixing pigment and monomer in water containing surfactant using a paint shaker for 17 hours. However, there is no disclosure of mixing aqueous dispersion of pigment with surfactant to form mixture and then adding monomer as required in all present claims and no disclosure of ratio of polymer to pigment covered with polymer as required in present claim 6.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

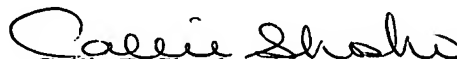
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
10/28/06